

10th Class 2018

Math (Science)	Group-I	PAPER-II
Time: 20 Minutes	(Objective Type)	Max. Marks: 15

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1- $\frac{2x+1}{(x+1)(x-1)}$ is:

- (a) An improper fraction
- (b) An equation
- (c) A proper fraction ✓
- (d) An inequation

2- Point $(-1, 4)$ lies in the quadrant:

- (a) I
- (b) II ✓
- (c) III
- (d) IV

3- A complete circle is divided into:

- (a) 90°
- (b) 180°
- (c) 270°
- (d) 360° ✓

4- The measure of the external angle of a regular octagon is:

- (a) $\frac{\pi}{10}$
- (b) $\frac{\pi}{6}$
- (c) $\frac{\pi}{8}$
- (d) $\frac{\pi}{4}$ ✓

5- Two tangents drawn to a circle from a point outside it are of _____ in length:

- (a) Half
- (b) Equal ✓
- (c) Double
- (d) Triple

6- The solution set of equation $4x^2 - 16 = 0$ is:

- (a) $\{\pm 4\}$
- (b) $\{4\}$
- (c) $\{\pm 2\}$ ✓
- (d) ± 2

- 7- $\frac{1}{\alpha} + \frac{1}{\beta}$ is equal to:
- (a) $\frac{1}{\alpha}$ (b) $\frac{1}{\alpha} - \frac{1}{\beta}$
(c) $\frac{\alpha - \beta}{\alpha\beta}$ (d) $\frac{\alpha + \beta}{\alpha\beta} \sqrt{}$
- 8- If $\frac{u}{v} = \frac{v}{w} = k$, then:
- (a) $u = wk^2 \sqrt{}$ (b) $u = vk^2$
(c) $u = w^2k$ (d) $u = v^2k$
- 9- The extent of variation between two extreme observations of a data set is measured by:
- (a) Average (b) Range $\sqrt{}$
(c) Quartiles (d) Median
- 10- The length of a chord and the radial segment of a circle are congruent, the central angle made by the chord will be:
- (a) $60^\circ \sqrt{}$ (b) 45°
(c) 30° (d) 75°
- 11- $\operatorname{cosec}^2 \theta - \cot^2 \theta = \text{-----}$.
- (a) 1 $\sqrt{}$ (b) -1
(c) 0 (d) $\tan \theta$
- 12- Product of cube roots of unity is:
- (a) 0 (b) 1 $\sqrt{}$
(c) -1 (d) 3
- 13- A line intersecting a circle is called:
- (a) Tangent (b) Chord
(c) Secant $\sqrt{}$ (d) Diameter
- 14- In a proportion $a : b :: c : d$, b and c are called:
- (a) Means $\sqrt{}$ (b) Extremes
(c) Fourth proportional (d) Third proportional
- 15- A collection of well-defined objects is called:
- (a) Subset (b) Power set
(c) Set $\sqrt{}$ (d) Super set